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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,878	03/15/2004	Kaoru Yamaguchi	250451US3	8350

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C. IRVIN MCCLELLAND  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

WERNER, JONATHAN S

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/799,878

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Jonathan Werner

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/26/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. This action is in response to Applicant's amendment received on 5/26/06.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honkura et al. (US 6,299,450) in view of Gillings (US 4,209,905) further in view of Suzuki (US 5,934,924). Honkura discloses a dental magnetic attachment comprising a keeper (10) and a magnetic structure (1) comprising a cup yoke (12) formed of a soft magnetic structure (Abstract) and a cylindrical permanent magnet (11) embedded in a circular depressed part provided in a central part of the cup yoke (Figures 1-5), with the depressed part of the cup yoke sealed by welding (Abstract) with a circular disk plate (15) formed of a soft magnetic material through a non-magnetic ring seal (26) to form a plane adsorbing surface having the substantially same shape as the adsorbing surface of the keeper (Figures 1-5), with a minor axis diameter of the adsorbing surface of the magnet structure of 1.1 to 1.4 with respect to the diameter of the cylindrical permanent magnet being 1 [(diameter D / diameter DM) = (4.00 mm / 3.05 mm) = 1.31]. However, Honkura shows that the keeper is round instead of elliptical. Gillings teaches a dental

magnetic attachment comprising a keeper (30) having an adsorbing surface forming an externally convex curved line in a major axis and an externally convex curved line in a minor axis continued to the externally convex curved line in the major axis (Figures 5-6 and 8). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to use a keeper having an adsorbing surface forming an externally convex curved line in a major axis and an externally convex curved line in a minor axis and having a ratio of a major axis diameter to a minor axis diameter of 1.02 to 2.0 since it has been held to be common knowledge in the art, as taught by Gillings (column 5, lines 60-62), that the keepers can take one of the various configurations as exemplified in Figures 5 to 7 in order to properly fit within a corresponding tooth stump, and whereby determining the optimum or workable ranges of the ratio of the major axis diameter to a minor axis diameter involves only routine skill in the art since the shape is essentially elliptical. For instance, Figures 5 and 5A of Gillings demonstrate that the keeper has a ratio of the major axis to the minor axis of approximately 1.3 when measured – which is well within the claimed range of 1.02 to 2.0. Gillings additionally shows the adsorbing surface of the magnet structure (28) has shape forming straight lines in parallel to each other in the minor axis (Figure 5) and the plane side surfaces opposite to each other are substantially parallel to each other (Figure 5). Though, neither Honkura nor Gillings disclose the step of ablating side parts of the structure. Suzuki, however, teaches the process of ablating side parts of a circular structure (column 3, lines 40-47; Figure 1) for permitting the insertion of one component into a complimentary receiving component. Therefore, it would have been obvious to one

having ordinary skill in the art at the time the invention was made to ablate opposite sides of each component in order to ensure a proper fit of the magnet structure when inserting it into a corresponding area as taught by Suzuki, such as in the anterior tooth part.

### ***Response to Arguments***

3. Examiner herein acknowledges and approves all corrections made to claims 10 and 12 sufficient to overcome the rejection under 35 U.S.C. 112, second paragraph.
4. Applicant's arguments with respect to claims 10 and 12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

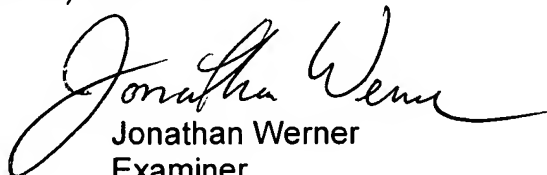
Art Unit: 3732

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jonathan Werner  
Examiner  
TC 3700

7/25/06

  
MELBA N. BUMGARNER  
PRIMARY EXAMINER